



THE AMERICAN BEE JOURNAL



Established in 1861, at Washington, by the late Samuel Wagner.

Thou cheerful Bee ! Come, freely come,
And travel round my Floral Bower ;
Delight me with thy wand'ring hum,
And rouse me from my musing hour.
Oh ! try no more those tedious fields,
My honied treasures all are thine ;
Come, taste the sweets my Garden yields,
The bud, the blossom,—all are thine.

—SMYTH.

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THOMAS G. NEWMAN
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it five months, and all came out in good condition. The one I constructed was modified somewhat from the one Mr. Langstroth described in his work, merely for convenience. Having selected the highest ground, near the bee yard, for the clamp, I measured off 16x16 feet, dug out the soil one foot deep, throwing it out at each side for covering; I then set four posts in the center on a square of 8 feet and 6 feet high, pining pieces on top of the posts to sustain the inward pressure, after being covered. I covered the top with strong poles, placing them 8 or 10 inches apart, and treating the sides the same, placing the bottom of the side poles on the top of the ground, which would give them an inclination of about 45 degrees. On one side put a door, the jamb being a foot wide, and the same position, or slant, as the sides. It is then ready to cover with straw (hay is better), cover all with earth 1 foot thick, and you have it ready for the bees. Make a cover for the door and place it on the jamb on the outside. Cut a hole in one corner of the door 3x3 inches for ventilation; or ventilating tubes would be better. It is well to let it remain a few days, with the cover off, to dry out before putting in the bees. When they are put in have the hives as dry as possible; give them upward ventilation, and disturb them afterwards as little as possible.

M. S. SNOW.
Ono, Wis., Dec. 1, 1875.

For the American Bee Journal.
Effects of the Extractor on Brood.

The question of J. W. Dunn, page 267, December number of the JOURNAL, is often asked, and is a very important one. The various opinions on the subject seem to show a lack of careful investigation. This is not as it should be; and the question ought to be settled beyond all peradventure before the next season for extracting has passed.

The results of my careful attention to this subject has taught me:

1st. Eggs can not be thrown out by the use of the extractor.

2nd. Young larvæ are not injured by the extractor unless thrown out.

3rd. Ninety per cent. of the larvæ that are thrown out by my extractor are drone larvæ.

The drone larvæ owing to the larger size of the cells, and their greater weight when several days old, are more easily displaced than worker larvæ.

As very young larvæ and eggs are often removed from the cells, when put into a strange colony, it is necessary to notice whether combs are put into their proper hive or not. I think this the likeliest source of error in determining this question.

A daily examination of the combs of queenless colonies that had been extracted failed to discover, in several instances, any other change in the contained brood and eggs, than was due to growth and development.

Some apiarists say: always run the bottom of comb forward in the extractor, to make the honey come out easier. Now I can see no difference in this respect; and theoretically there is none, for the centrifugal force acts in a *straight line*, outward from the center.

A careless hand will sometimes break combs by starting or stopping too suddenly, especially if the gearing is such as to require a rapid motion of the hand, thus giving more power over the revolving frames.

The most common objection that I have observed to the extractors offered for sale is that the combs are too near the center of the machine. Some that are on the market have the comb-racks so close to the center, that the tendency is to split the combs down the middle when in rapid motion.

W. C. P.

Maysville, Ky.

For the American Bee Journal.
Chips from Sweet Home.

SEPT. 14.—Our apiary numbers 108 hives, of which 50 are storing in boxes, slinging from 15, 41 comb-building, and two have queens not laying.

Since we have Italianized our apiary we are troubled but little by the moth; ants and spiders are worse this year.

Some time since some writer said that the Italians built larger cells than the black bees. A few days since we got a swarm of black bees, and had an opportunity to verify it; their worker comb measured 100 cells in two inches square (or four square inches), and the Italians only 82 in two inches square. Is this difference in size an improvement or not? Are Italians smaller by being raised in cells by black bees?

We use all good drone comb for guides in surplus boxes. To secure this we are cutting out drone comb, and have our comb-builders fill in with worker comb; for this purpose we employ nuclei and weak swarms, giving them from 2 to 3 full combs of brood and one or two empty frames or combs, from which we have cut drone comb; these we keep *strong* by crowding with a division-board, and examine once every two or three days, according to the tendency to build drone comb, which is regulated by the amount of honey being gathered, building worker if scarce, and *vice versa*.

How would I secure the greatest amount of box honey? I would have large hives; if Langstroth frame, 9x17 inches outside measurement; I would have 18 frames.

Commence in the spring with as many combs as the bees can cover, when honey and pollen is not to be gathered, *stimulate* by feeding rye-flour and sweetened water; insert between each two combs of brood an empty comb; in this you will need to be guided by the prolificness of the queen, amount of bees and the *weather*, using a division-board, until you have filled the hive with 18 frames of brood. Have the hives made with a front or entrance at both ends; these you will regulate, keeping them more or less open according to weather and strength of colony. If you use the Langstroth blocks that have slots, put the slotted side up, as they harbor worms.

Be careful not to put any *drone comb* in the hive, for they will raise a lot of useless consumers and *incite* them to swarm. *Did you ever know a hive to swarm that had no drone-comb?* Have all *worker-comb* full of brood, and the hive crowded with bees, and they will only leave your sweetened water for honey abroad. Put on 12 6-lb. boxes, or better, use a section-box of frames similar to the one used by Clark and Harbison, of California. I make them as follows: Upright side pieces, $1\frac{1}{8}$ inches long, $1\frac{1}{4}$ inches wide, and $\frac{3}{8}$ inch thick; top piece, $6\frac{1}{4} \times 1\frac{1}{4} \times 3\frac{1}{2}$; this piece is nailed on top of side pieces; bottom piece is $\frac{1}{4}$ inch square and $5\frac{1}{2}$ inches long; this is nailed between the side pieces, with one corner downward; for nailing use lath nails. These frames are held together by a thin strip of wood laid in a $\frac{1}{2}$ -inch mortice in the center of the outsides of side pieces, and tacked with cigar tacks in the end sections. A 13-frame Langstroth hive will hold four of these section boxes, of 11 frames each, with a storage capacity of 112 lbs, instead of 72 lbs, in boxes. We put 6x7 glass on each end of the section box with glue, these frames will hold about $2\frac{1}{2}$ lbs, and may be retailed separately. These frames give us the advantage of large boxes (bees will store more in a large box than in small ones), more surplus room, and when partially filled they may be emptied with the slinger and the honey sold, instead of laying by from 1 to 4 lbs per box till next season. The frames will need a thin strip of comb as a guide, which may be fastened to the top piece with glue or beeswax and resin, of equal parts.

About once a month it is well to open hives that are run for box honey, and empty any combs that are filled and return, putting them in the center and those filled with brood to the outside.

The season of 1875 has been very cool with us, as will be seen by the following notes kept: Mar. 30, fahrenheit, 80° ; April 16 and 17, 20° ; remaining cool till May 7, 84° ; then about ten days warm, then cool till June 20, then cool nights, being about 55° in morning, and up to 80° at

noon. Aug. 22, 5 A. M., 43° ; Aug. 23, 5 A. M., 40° ; at 1 P. M. of same day, 78° . Aug. 25, 5 A. M., 70° ; 1 P. M., 90° ; continuing warm till Sept. 10, 5 A. M., 55° ; then rained every day till Sept. 18, when we had a light frost.

I set out, March 27, 54 hives out of 100 put in cellar. April 6th, gathered pollen; May 7, first drone seen; bass-wood, apple, wild and tame cherry, plumb; white clover, failed to produce any honey; raspberries, mustard, produced some. July 8, bees commenced and gathered considerable from ebow brush; then, Aug. 10, they commenced on buckwheat, of which we had 25 acres within $1\frac{1}{2}$ miles; they left buckwheat, which yielded well, for the Mississippi bottom fall flowers, gathering considerable till frost, when a heavy rain cut the flow of honey short.

On account of cold weather, bees worked but little in boxes, storing it below, crowding the brood to a small space. Ten hives which I run for slung honey kept crowded with bees and brood, and did not swarm, but those storing in boxes had the swarming mania. From Aug. 25 till Sept 10, I increased to 108 hives, but 3 being queenless I united them with others, leaving 105 to try the winter with.

We took 1,000 lbs box honey and 2,000 lbs slung honey. D. D. PALMER.

Eliza, Mercer Co., Ill., Oct. 2, 1875.

For the American Bee Journal.
What They Did, and How They Did It.

DEAR JOURNAL:—The summer is ended, the honey harvest is past for the year 1875, and it is now the duty of the bee-keeper to repay the little busy bees for their last season's work, by preparing them carefully to exist during the long and cold winter that we are destined to have in this latitude. It is also the farther duty of every bee-keeper to carefully look over his last season's work and see what he has accomplished—comparing his losses with his success, also carefully reading the AMERICAN BEE JOURNAL and then trying to make next season more of a success than the last. That, I consider the way to make bee-keeping a success. I commenced last spring with 18 stocks, 8 of which were queenless; the spring was unfavorable, but I brought them all through; owing to storms I got only about 100 lbs of linden honey; we have no white clover here, from the middle to the last of July. My queens seemed determined to lay in the upper stories; about the middle of August they commenced to store honey and also to swarm; although I extracted once a week, still they would swarm.

I piled up some of my Quinby hives to three stories; it gave me a good chance to experiment with hiving swarms back into the parent stock, hiving swarms with

PITTSBURGH, PA.—Feb. 9, 1876.—“The honey market has been very dull, honey being a luxury does not find ready sale during such an exceedingly hard season as the past one has been in this section. We hope for a better trade in such goods this year. Our supplies with the exception of a few small lots from Virginia have been brought direct from the Pacific coast.”

JESSE H. LIPPINCOTT.

WORCESTER CO. MASS.—Feb. 16, 1876.—“I keep a few swarms of bees, not for profit, but for the pleasure of seeing them work and taking care of them. I very seldom lose a swarm. I winter them on their summer stands and take the whole care of them. I go among them without fear and am but seldom stung. White Clover is our chief honey plant. I find THE AMERICAN BEE JOURNAL very interesting.”

MRS. EDWARD BROWN.

CARLILE, KANSAS.—Feb. 23, 1876.—“In 1874 bees were an entire failure here, and in 1875 they were not much better. Last fall they stocked up some, but made no surplus honey. We scarcely ever get any surplus honey here until smart weed, Spanish needle, and corn are in bloom. Some seasons there is considerable buckwheat sown, then bees do very well.”

JOEL B. MYERS.

ELIZA, ILLS.—Feb. 19, 1876.—“On page 15 of AMERICAN BEE JOURNAL, in the description of section box the upright side-pieces should be $6\frac{1}{2}$ inches, instead of $1\frac{1}{2}$. The $\frac{1}{2}$ inch mortice is cut by a saw so set as to wabble. The $\frac{1}{2}$ inch thin strip is laid in these mortices so as to hold the frames in a box. In answer to J. E. of Kansas. It is not like the boxes described on page 108 of AMERICAN BEE JOURNAL 1875, but these frames make a continuous tight box except on the bottom and ends. When these frames are put together there is on each side a continuous groove, in which the thin strip fits; this being tacked at each end holds them all together. Be careful to have this stuff cut out *exactly* as given in AMERICAN BEE JOURNAL, page 15. Honey put up in these frames when nicely made has brought us 5 cents more per pound. When filled with honey one of these boxes will hold about 25 pounds, and yet the frames can be taken apart and one comb sold weighing 2 pounds, or 1 pound, if frame is small enough. Clark and Harbison do not use any glass in ends. I wish to—will some one inform me through AMERICAN BEE JOURNAL how to do so.” D. D. PALMER.

Please write names and post-office address very plain. Very often men forget to give their post-office, and quite often a man dates his letter from the place where he lives, when the paper is to be sent to some other office.

American Bee Journal.

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and No. 3 between *B* and *C*, both equally distant from *B*, and after you have watched them a few minutes—if the bees enter No. 1 more than No. 3 you should move No. 1 a little towards *O* and No. 3 towards *B*, and continue moving them according to this principle until the bees enter each hive equally.

HOW TO TAKE THIRD AND FOURTH SWARMS.

No. 1 and No. 3 may be divided again on the next day, making third and fourth swarms. The operation is the same as taking a second swarm, except we put only two combs in each hive.

When bees are divided thus small, they must have constant care, to insure success. As soon as the young queens commence laying, these two combs (allowing one-third for stores) will yield a brood of ten thousand bees every twenty-one days. But these small colonies were formed ten or twelve days before the young queens are ready to lay. During this time the brood all hatches out, leaving the combs empty, and if honey is plenty, the bees are very apt to fill the two combs with honey, leaving no place for the queen to deposit her eggs. If left in this condition a short time, your swarms would be failures. Whenever the combs are in this condition, the honey should be extracted from them, and you should continue to do so every two or three days, if the bees fill them. Again, if the weather should be cold and rainy, the bees will not breed, for want of proper food. In this case, they should be stimulated to breed by feeding, every evening, a little sugar syrup. As soon as the brood begins to hatch in these stocks, they increase very fast. We now slip an empty frame down between the two combs, so that the bees can retain the heat better and build comb faster, than they could on the outside. Sometimes these weak stocks will fill a frame in three days; then again, it will require a week. They should be watched very closely at this time, and as fast as a frame is filled, an empty one should be given them, and continue this (giving one frame at a time) until the hive is filled. If any of these stocks should lose its queen while she was out to meet the drone, which is often the case, you should know it at once, and unite it with one more fortunate, and not let it stand until the moths destroy the combs.

HOW TO TAKE THE FIFTH SWARM.

When first swarms come early, and the weather is good, they will often fill the hive in a week or two, and swarm. If our bees come through the winter strong, so that we can divide them early, we may also divide the first swarm if it fills the hive, before it becomes too late in the season; and since No. 2, the first swarm, is now in the same condition that No. 1 was when the first swarm was taken—full of

comb, brood, bees, and has the old queen—the operation for taking the fifth swarm will be the same as for the first, and need not be repeated here. If, however, the first swarm does not fill its hive soon enough to be divided, you may take four combs from it (No. 2), leaving five, and give one of them to each of the stocks, Nos. 1, 3, 4, and 5. (These numbers indicate the hives and not the swarms, as No. 5 contains the fourth swarm.) This will enable them to rear a brood of fifteen thousand bees, instead of ten thousand, every twenty-one days.

We do not generally get any surplus honey after dividing the bees so often. But if the season is good for breeding, so that we can make all of our weak stocks strong and we have a good yield of honey in the fall, we may get more surplus than if we had not divided but once—because we have six stocks to work in the boxes instead of two. This has frequently been the case during the past season. I increased one stock to five and they made 111 lbs surplus—another to four and they yielded 160 lbs—another to seven, they gave 120 lbs surplus. A gentleman, after letting his first swarm go off and had hived the second—sent for me to come and see to his bees. I found the old stock still contained a number of queen cells ready to hatch. I divided it into three stocks, giving each three combs. The four filled their hives and three of them swarmed in September and one of these filled a hive containing nine frames, twelve inches square, in seven days with comb brood and honey. I would say, for the benefit of the beginners in bee-keeping, that we can tell no more what a stock of bees will do in the coming season than how many bushels of oats we can raise on an acre. The former, depends on the bee-pasturage, culture and weather, the latter, on the soil, culture and weather. The weather is something we can not control, and is just as liable to make our bees a failure as it is our oats.

•••

A CHIP FROM SWEET HOME.—IN THE AMERICAN BEE JOURNAL, Vol. 12, pages 15 and 80, I described the sectional frame for surplus box-honey; how to fit the glass in nicely, troubled me. I now use glass 5x6, nail on each end of box two pieces, one on top and one on the bottom, which have just the length the section is wide. $\frac{1}{4}$ inch thick and $1\frac{1}{4}$ wide, these are rabbeted by a circular saw so as to let the glass slide in from one side—the $\frac{1}{2}$ inch thin strip projects enough so that the glass cannot slide.

D. D. PALMER.

Eliza, Mercer Co., Ill.

Any numbers that fail to reach subscribers by fault of the mail, we are always glad to send again, on application.

For this, use a piece of wood of the shape and size of a match. Dip this in the last-mentioned solution, and pierce the foul broody cell to its bottom, immersing the piece of wood anew for each cell. For the unsealed brood, sprinkling with the atomizer and the weaker solution is sufficient. Every other evening feed about one-third pint of honey, to which are added from 30 to 50 drops of the alcoholic solution, according to size of hive.

The sprinkling should take place once a week, if not oftener. Mr. H.'s hives required from six to eight applications before he considered them cured. It is bad policy to take away the queen or to cage her, as it would weaken the swarm too much. In subsequent examinations one will find dead larvæ, though they may not exhibit the signs of foul brood. They are evidences of insufficient or faulty feeding and nursing. Mr. H. thinks that the constant exposure to the foul vapors of the hive proves deleterious to the queen and the bees generally. The young bees especially that act as nurses and at the same time remove the decaying matter, communicate the poison to the brood they feed. And as the foul brood fungus may perhaps generate and increase within the body of the living bee, as the trichina does in man, it is well to regenerate the brood by the addition of young bees from healthy hives. When all the above measures have been conscientiously applied, it nevertheless happens that foul brood will continue to appear. In such cases it may safely be presumed that the ovaries of the queen have become infected. In twenty-five hives treated by Mr. Hilbert, he found three such queens. Instead, therefore, of destroying all queens, it might be well to try them in nuclei hives with clean combs and healthy bees. Mr. H. summarizes the matter in the following words: "The absolute cure of foul brood may be effected by a proper application of salicylic acid, by the addition of healthy nurse bees, and by a change of queens, if necessary."

Mr. H. estimates one ounce of the acid sufficient to cure from five to seven stands. Care must be taken to sprinkle *all* parts.

Respectfully, JOHN P. BRUCK.
Los Angeles, Cal., April 7th, 1876.

For the American Bee Journal.
Extracted Honey.

In reference to extracted honey and the discussion thereon, I wish to bring forward a little of Mr. Heddon's past experience, in proof of my arguments.

The reader will remember that we hold that extracted honey does sell and does pay, and that bee-culture also pays, while Mr. Heddon denies all this.

Since Mr. H. seems to doubt our own

statements in proof of this, we will give him some of his own statements.

We have gathered Mr. H.'s past writings, and find that his honey crops were as follows:

Year.	Stocks in Spring.	lbs. Honey.	Stocks in Fall.
(1) 1870	6	528	22
(2) 1872	14	3000	not said.
(3) 1878	16	4200	35
(4) 1874	48	8500	55

Until 1874, from his own reports, (5) Mr. H. had never sold his honey less than 28 to 30 cts. In *Gleanings*, Sept., 1874, (6) he said: "As our honey sells at good prices, we have decided to feed sugar syrup this fall for wintering."

November, 1874, (4) he said: "Started a honey house and met with such good success that we shall handle 20,000 lbs. before next season. Bought the crop of several bee-keepers," etc., etc.

In August, 1874, (7) his opinion was that he could expect yet 2,000 lbs. of extracted honey, or else 150 lbs. comb, meaning that he could just as easily get 2,000 lbs. extracted, as 150 lbs. comb honey. This is entirely in contradiction with his opinion on the matter in A. B. J. for March, 1876, where he says, in substance: "Persons who think that extracted honey at 10 cents, could be produced as profitably as comb honey at 25 cents, are ignorant of the manipulation of small boxes." From his own words, as above, he could produce over thirteen times as much extracted honey as comb honey, that is, if he sold extracted honey at 10 cents, he should sell comb honey at \$1.30.

All at once, however, Mr. H. found that honey was a drug on the market, and in September, 1875, (8) he advertised three barrels of extracted honey for sale. Now, Mr. H., one question.

If in 1874 you could sell 20,000 lbs. of honey, how is it that in 1875 you could not get rid of just three barrels? Have your customers left you? Or have honey dealers sold adulterated honey to your dealers and beat you out? If that is the case, why not sell your honey cheaper than they can afford to sell theirs, since you say, A. B. J., 1876, p. 30, that bee-keepers can raise the pure article cheaper than they can manufacture it.

My friend, D. D. Palmer, of Eliza, Ill., said in December No. of *Gleanings*, and in answer to H.'s complaint, that he, Palmer, had made \$535.00 out of fifty-five colonies in one season, and thus tried to prove to Mr. H. that bee-culture does pay.

- (1) A. B. J., Vol. VI., p. 118.
- (2) " " Vol. VIII., p. 251.
- (3) " " Vol. X., p. 154.
- (4) *Gleanings*, Vol. II., p. 148.
- (5) " " Vol. II., p. 9.
- (6) " " Vol. II., p. 109.
- (7) " " Vol. II., p. 101.
- (8) " " Vol. III., p. 128.

Friend Palmer, you can't prove anything! Mr. H. has made (9) in one season (1873) \$800.00 from 16 colonies of bees, or \$50.00 per colony, by his own report, and still complains that bee culture will not pay.

One more word. Mr. H. says that extracted honey is inferior to cane syrup. We don't know how his honey is, but we emphatically affirm that we have never seen *pure* extracted honey that we did not prefer to any syrup, and we know that 99-100 of our readers will agree with us in this. We say that granulated honey is the only extracted honey which is merchantable wherever buyers are acquainted with honey.

We say that honey does not need to be all capped over to be extracted. We usually take it when about one-half capped over and we *never* had honey to turn sour, although we have now on hand about fifty lbs. from 1873, which we kept for an experiment, and that honey is as good as ever. Of course it is granulated.

Mr. Heddon has answered our arguments on the usefulness of the extractor, and on the saving for the bees whenever it is used, only by telling us that he did not say that thin watery stores were the cause of the mortality of bees in 1869. True, he only said that he could see no other cause but that. In this he is somewhat of our opinion. That may not have been the only cause, but it was one of the *main causes*.

Be it understood that we entertain no hard feeling against Mr. H., but that we only wish to prove that extracted honey pays, and sells when pure and granulated, and that bee-culture does pay, while Mr. H. tries to prove the negative on these questions.

C. P. DADANT.

For the American Bee Journal.
Wintering and Springing.

Those of us who winter our bees on their summer stands, find the chief difficulty with which we have to contend is to winter over a sufficient number of bees in each stock, so that they may be strong enough to successfully contend with our damp spring.

The main point, we conceive, is not whether we can save each colony, so that we are not reduced in the number of stocks we had in the previous season, but that each individual stand shall be healthy and populous that it may be able early to take advantage of pasturage fitted for their use; who that has had any experience in the matter, does not know the vexation and labor connected with bringing up a weak colony in the spring or summer, to a proper condition to carry it through the following winter?

Now that we have succeeded for many

winters past to our full satisfaction in wintering our bees, it may be proper here to give a brief description of the plan adopted. For some ten years we have practiced upon the principle of upward ventilation, (in *every instance* we have failed where we discarded this principle); our chief object has been after the removal of the honey boards (we use the Langstroth hive) to ascertain what was the proper material to place over top of the frames; after testing various substances, such as leaves, bran, corn cobs, cut straw, etc., (we never tried straw mats) we have finally adopted the following system: We first remove two combs from each hive; we then cut winter passages in every comb which is not already cut, then take a woolen quilt, blanket, or similar covering, and place over top and down the sides of the combs; on top of this we place a frame four inches deep, upon which is tacked a woolen cloth, making a chaff-box which we fill with *wheat chaff*, and place this box directly on top of the quilt, then pack sides (of double hives) and cap with wheat chaff, and the hive is ready for the winter. I forgot to state that I open and close the entrance blocks as the weather may change from cold to warm and *vice versa*. I prefer wheat chaff to anything I have ever used unless it may be a number of plies of coarse paper; the wheat chaff is also better than oats or other chaffs which lie too close and retain too much moisture, which should pass off, and therefore keep the bees both warm and dry.

The more serious matter of springing, remains yet to be looked after (and in our location, 42°, is after all the great obstacle to successful bee-keeping.) Last fall was no exception to many previous ones, in the fact that we had several stocks which proved obstinate and refused to breed late in the season; it made no difference how lavishly we fed them, either on honey, sugar syrup, or candy, we could not induce breeding, a result which we labored industriously to promote, as we are of those who believe that in order to successful *out-door* wintering, *we must have young bees*. And then again, we committed the too common error among apiarists, that in order to keep our full complement of stocks through the winter, we kept some that were too scarce of bees to keep a proper degree of warmth in the hive; and another error, we were very anxious to save two valuable queens, which we saw no other way of doing. We think the lesson served us dearly for *we lost both*. As is always the case, we can now see the remedy after it is too late to meet it. Where there are a number of stocks in the apiary we will always find some that have more brood and bees than we care to put up in a single stock for the winter. Now, how easy it would have been to have exchanged combs of brood

(9) *Gleanings*, Vol. II., p. 48.

also devoted to the same purpose. These rooms should be dark, and, if possible, kept at a temperature of about 42 deg. F. The hives should be set in as soon as cool weather makes its appearance; and before the combs become frosty, the top of the hive may be removed and a blanket or straw mat laid on the frames.

If the stocks are populous, and have good queens and plenty of honey, and the hives can be properly packed I would rather have them remain on their summer stands. Make a box just the width and length of the hive and three inches deep and set the hive over it. This will give an air space below the combs and preclude the possibility of the freezing up of the entrance. If the hives are large so much the better. Place the eight or ten combs containing the winter's food near the center, and hang on each side a division board, made by nailing together pieces of lath with an even layer of straw between them; place above a cap or top story several inches deep, lay a quilt or straw mat across the tops of the frames, and pack chaff or cut straw over and around them very closely. The cover should not shut very tightly but should admit no water. If snow-drifts cover the hives, they will be much better off.

To sum up, then, the conditions for successful out-door wintering seem to be the following: Strong stocks, plenty of honey, good queens, large hives well packed above and at the sides with dry absorbing material, an air space of two or three inches below the combs, and a chance for the moisture caused by the heat of the bees to pass off very gradually without permitting any draft of air through the hive.

I have had stocks prepared in this manner that reared brood all winter and were in splendid condition for the next season's work. There will be no trouble about "springing" such stocks. When thus prepared I have never lost any colonies in wintering, but I have lost them when they were placed in a cellar or buried in pits, or when they were neglected on their summer stands.

Knoxville, Tenn. FRANK BENTON.

For the American Bee Journal.
Chips from Sweet Home.

We started with 103 hives, increased to 175, got 1,920 lbs. box honey and 940 lbs. slung honey, and about 30 lbs. beeswax. In taking off our boxes we had 122 section boxes that were more or less filled, of the sections partly filled and not salable for comb honey, my wife slung out 200 lbs. Of the sections that were filled and capped nicely I filled 38 boxes, weighing 613 lbs., the empty combs are saved for next year's filling. I have 70 6-lb. boxes partly filled containing about 200 lbs., of which I cannot well make any use; this alone makes considerable difference in favor of the sections. This season was very favorable for swarming, and the forepart was favorable for honey, but the month—from Aug. 15 to Sep. 15—that we count on for honey was very wet, raining nearly every day, so our crop is quite short.

Here is an idea and plan to prevent swarming, or at least to do the next best, for which I am indebted to J. L. Wolfenden of Adams, Wis. I give it as he wrote to *Gleanings* and also on a postal card to me,

as I wrote him to tell us "all about it." I have had better success with box honey this season. The way I fool them is this: When they swarm put them in an empty hive just beside their old one. When nicely at work, say in one or two days, give them their old combs and boxes and everything goes on as though nothing had happened. I keep queen's wings clipped when swarm issues, watch her, turn old hive half way round and cover entrance, put new hive with one frame of brood close by old one with queen in front, when bees return release her, when all in, turn old hive to its former position; let them remain that way a day or two, then give them their old combs minus queen cells. I tried it on 6 or 8, and no failures, they worked in boxes as though nothing had happened.

If we can prevent increase, then we will have attained the four things for profit, viz: movable frames, Italian bees, honey slinger and no increase. D. D. PALMER.

Eliza, Mercer Co., Ill., Oct. 9, 1876.

[The above was all written on a postal card. Friend Palmer thinks printers have good eyes and magnifying ones, at that.—ED.]

For the American Bee Journal.

Sundry Observations.

THE BEE MOTH.

We never considered the moth-miller an enemy to bees. Whoever knew a hive of bees destroyed by these pests, unless the hive was first greatly reduced in bees? It is only after a hive has become queenless that the bee moth gets control and destroys the combs. The moth worm does not like the taste of honey, and that part of the combs containing honey are the last to be eaten by them. Novices, as a general thing, get the idea into their heads, that the moth is in their hives, and they fear that they will soon lose them. All hives have more or less moth worms about them, but no strong stock of bees was ever injured by them.

Hives with "patent moth traps" attached to them are only got up to swindle the novice who does not understand the habits of the moth. All such clap-trap fixings are a perfect humbug. Of course if the miller can be destroyed they won't do any damage to even a queenless colony. Moth traps won't do much towards destroying them. At this age of movable comb hives no stock of bees need be destroyed by worms, and only a careless bee-keeper will permit such a thing to occur on his premises.

Last winter we read an article in a certain bee journal and the writer acknowledged that he had lost a hive by worms, and this writer has taken it to himself to teach other bee-keepers the art of bee-keeping, and I notice that there are several bee-keepers who have had not over five years' experience, undertake the job to teach the same art. We old ducks must take a back seat and look on. Appearances about the entrance of the hive indicates what is going on in the hive. Most observing bee-keepers have no trouble in determining whether a hive is queenless or infected by worms without examining the combs. If a hive is known to have been queenless for a month

will do it. It's no easy task to sit down and pen a newspaper article when one has his head and hands full of business; if somebody thinks it is, why just let them try their hand at it.

The honey season is over for '76, and we may safely say that the centennial year has been a failure with us, so far as honey is concerned. The spring was cold, backward and wet, which wasn't at all conducive to strengthening up our decimated stocks very early in the season. The "June roses" (or something else) brought warmer weather, and—rain, rain, rain. For more than two weeks it rained almost incessantly, which of course delayed the advent of the basswood bloom. Finally it cleared up and then came a period of intense heat. Day after day the mercury wandered among the nineties, and when the linden blossoms came it was only to make a call, and a brief one too. It usually yields honey about twenty days, but this season could only afford us ten. Even during this brief period the flow of nectar was very moderate.

The scorching heat still continued, though the bees obtained a little honey from some early sown buckwheat, enough to prevent robbing and to stimulate brood rearing.

The fall harvest commenced about the 10th of August and continued for some 15 days; bone-set, fireweed, and buckwheat being the chief sources of supply. The yield of honey was only moderate, not so good as in former seasons. August is usually the best honey month of the whole season with us; and even this season we would have obtained a fair amount of surplus, had it not been for an unfortunate investment in the comb foundations, about which we may have something to tell the JOURNAL one of these days. The season has been quite poor throughout our entire State, but we learn from our Illinois correspondents that it has been an unusually good one in the "Sucker State," and right glad are we to hear it. We are pleased to learn of the success of our brother apiarists everywhere. We know from experience and observation in this particular field of rural industry, that a man fairly earns all that he obtains, and in too many cases much more than that amount.

We started out with the full intention, Mr. Editor, of giving you our experience with the house apiary, but as it is getting late and we are getting sleepy, will defer it until next month, when we will tell what we know about that particular item, which goes to make up the sum total of modern apiculture. When we take a retrospective glance over these past twelve years, we are led to exclaim with that good old lady, Mrs. Partington, "bless my stars, how our American people do take to new-fangled fixins." We wonder if her son Ike wasn't a bee-keeper? Good night.

HERBERT A. BURCH.
South Haven, Mich., Oct. 19, 1876.

For the American Bee Journal.

A Chip from Sweet Home.

In August my wife and the "old block" from which the chips fly, gave Dr. Derr—living 13 miles distant, near Keithsburg—a fraternal call. The Doctor's apiary numbers nearly 100 hives. He runs them for profit; movable frames (Langstroth), slinger

and black bees. He had 100 6-lb. boxes piled in his kitchen, also a quantity of slung honey. A number of his hives are close by his honey. We were surprised to see "nary a bee" prying into those boxes; the doors and windows being open.

My house is 10 rods distant from the apiary, and a little honey on the table covered will attract our Italians, so that we have to close the door. His blacks and my Italians were neither gathering any honey. Italians will find honey or any sweets in more secret or distant places than blacks; this fact we have noticed several times. The Doctor lacked shade; for a few he had tried some corn hills, which he said gave him all the shade he wanted. He has adopted the slates, as well as some other neighbors. Bee-keepers try the slates! they cost but one cent each, and report.

D. D. PALMER.

Eliza, Ill., Oct. 16, 1876.

For the American Bee Journal.

Southwestern B. K. Association.

Persuant to a call issued at the preliminary meeting here on Aug. 17th, a number of bee-keepers met and effected a permanent organization by electing the Rev. Dr. Marshall, of Marshall, Texas, president; Wm. L. Gorden, of Shreveport, secretary; and J. M. Bowles, of Shreveport, treasurer.

On motion, resolved, that the name of this association shall be called "The Southwestern Bee-Keepers' Association."

On motion, resolved, that the chair appoint a committee to draft a constitution and by-laws, and report the same at our next meeting. The following gentlemen were appointed: Wm. L. Gorden, J. M. Bowles, Col. L. L. Tompkins, and W. D. Wylie.

On motion, resolved, that the reading of essays, etc., asked at the preliminary meeting to be read to-day, be deferred until our next meeting.

On motion, resolved, that any person wishing to become members can do so by enrolling their names. The following names were enrolled: Rev. Dr. W. K. Marshall, and J. E. Jones, of Marshall, Tex.; Geo. W. Stoner, Wm. L. Gorden, J. M. Foster, Dr. J. F. Davis, J. M. Bowles, W. E. Paxton, Rainey Carter, and W. D. Wylie, of Shreveport, La.; Capt. O. L. Durham, Keachi, La.; W. C. Hill, of Jefferson, Tex.; G. W. Jefferson, Kingston, La.; and John R. Williams.

On motion, the meeting then adjourned to meet in Shreveport on the second Wednesday in March, 1877, at 10:30 A. M.

Wm. L. GORDEN, Secy.

For the American Bee Journal.

How to Increase the List.

I notice that several persons have offered to give premiums to the one who sends the largest number of subscribers to the JOURNAL before Jan. 1, 1876. All this is good and just right, but it strikes me that we can increase the number of subscribers in another way. My plan is this: Let each subscriber and reader of the JOURNAL make up his mind to send one new name at least. Now let us go to work and do this before the 1st of January, so that when the